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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,350	09/30/2003	Katsunori Yanagida	SNY-041	3443
20374	7590	09/28/2006		
KUBOVCIK & KUBOVCIK SUITE 710 900 17TH STREET NW WASHINGTON, DC 20006			EXAMINER WEINER, LAURA S	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/673,350

Applicant(s)

YANAGIDA ET AL.

Examiner

Laura S. Weiner

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09-2003.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishimura et al. (US 2004/0126668).

Nishimura et al. teaches a lithium secondary battery comprising a negative electrode including a carbonaceous material. Nishimura et al. teaches on page 2, [0022], that since a carbonaceous material is used as the active material for the negative electrode, it is preferable to include at least EC and to further include GBL and/or EMC. Nishimura et al. teaches on page 4, [0045], that one hundred parts by weight of carbonaceous material powder with a specific surface area of 2 m<sup>2</sup>/g. 50 g of an artificial graphite having a d<sub>002</sub>=0.336 nm, L<sub>c</sub>=100 nm and L<sub>a</sub>=97 nm and having specific surface area of 10.5 m<sup>2</sup>/g. Nishimura et al. teaches on pages 4-5, [0047], that LiBF<sub>4</sub> was dissolved into a mixed solution of EC, GBL and EMC. Five wt% of trifunctional polyether polyol acrylic acid ester and 3 wt% of vinylene carbonate were mixed into 92 wt% of the organic electrolytic solution.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nishimura et al. (US 2004/0126668).

Nishimura et al. teaches a lithium secondary battery comprising a negative electrode including a carbonaceous material. Nishimura et al. teaches on page 2, [0022], that since a carbonaceous material is used as the active material for the negative electrode, it is preferable to include at least EC and to further include GBL and/or EMC. Nishimura et al. teaches on page 4, [0045], that one hundred parts by weight of carbonaceous material powder with a specific surface area of 2 m<sup>2</sup>/g. 50 g of an artificial graphite having a d<sub>002</sub>=0.336 nm, L<sub>c</sub>=100 nm and L<sub>a</sub>=97 nm and having specific surface area of 10.5 m<sup>2</sup>/g. Nishimura et al. teaches on pages 4-5, [0047], that LiBF<sub>4</sub> was dissolved into a mixed solution of EC, GBL and EMC. Five wt% of trifunctional polyether polyol acrylic acid ester and 3 wt% of vinylene carbonate were mixed into 92 wt% of the organic electrolytic solution.

Art Unit: 1745

Since Nishimura et al. teaches the same lithium secondary battery comprising a negative electrode which contains a graphite material having a  $d_{002}=0.336$  nm, a  $L_c$ , an  $L_a$  and a specific surface area then inherently the same lithium secondary battery having a graphite electrode where the  $I_{110}/I_{002}$  of the graphite is in the range of 0.005 to 0.0015 and the  $I_D/I_G$  of graphite is in the range of 0.15 to 0.7 must also be obtained.


In addition, the presently claimed property of a graphite electrode where the  $I_{110}/I_{002}$  of the graphite is in the range of 0.005 to 0.0015 and the  $I_D/I_G$  of graphite is in the range of 0.15 to 0.7 would have obviously have been present once the Nishimura et al. product is provided. *In re Best*, 195 USPQ 433 (CCPA 1977).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Laura S Weiner  
Primary Examiner  
Art Unit 1745

September 25, 2006